

1 1. A decoder comprising:

2 a processor for operating on a data stream of data having portions encoded
3 by respectively different compression standards;

4 a token generator responsive to the encoded data stream for generating at
5 least one data token and a control token corresponding to each of the different
6 compression standards; and

7 the processor being conditioned to process the at least one data token
8 according to the different compression standard to which the generated control token
9 corresponds.

1 2. The decoder of claim 1, wherein the processor comprises a pipeline

2 processor having stages, at least one of the stages being conditioned to process the
3 at least one data token according to the different compression standard to which the
4 generated control token corresponds.

1 3. The decoder of claim 2, wherein the at least one data token is altered

2 by the at least one of the stages.

1 4. The decoder of claim 2, wherein the at least one data token is altered

2 by the at least one of the stages and conveyed to another one of the stages for
3 further processing.

1 5. The decoder of claim 2, wherein the token generator resides in one of

2 the stages.

1 6. The decoder of claim 2, wherein the generated control token interfaces

2 with each of the stages.

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1 7. The decoder of claim 2, wherein the generated control token interacts
2 with predetermined ones of the stages.

1 8. The decoder of claim 2, wherein the at least one data token is altered
2 by the predetermined ones of the stages.

1 9. The decoder of claim 2, wherein the generated control token interacts
2 with adjacent ones of stages.

1 10. The decoder of claim 2, wherein the generated control token interacts
2 with non-adjacent ones of the stages.

1 11. A method of operating on a data stream of data having portions
2 encoded by respectively different standards comprising:
3 responsive to the encoded data stream, generating a control token
4 corresponding to each of the different standards and at least one data token; and
5 processing the at least one data token according to the different compression
6 standard to which the generated control token corresponds.

1 12. The method of claim 11, wherein processing the at least one data
2 token comprises altering the at least one data token.

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A pipeline video decoder and decompression system handles a plurality of separately encoded bit streams arranged as a single serial bit stream of digital bits and having separately encoded pairs of control codes and corresponding data carried in the serial bit stream. The pipeline system employs a plurality of interconnected stages to decode and decompress the single bit stream, including a start code detector. When in a search mode, the start code detector searches for a specific start code corresponding to one of multiple compression standards. The start code detector responding to the single serial bit stream generates control tokens and data tokens. A respective one of the tokens includes a plurality of data words. Each data word has an extension bit which indicates a presence of additional words therein. The data words are thereby unlimited in number. A token decode circuit positioned in certain of the stages recognizes certain of the tokens as control tokens pertinent to that stage and passes unrecognized control tokens to a succeeding stage. A reconfigurable decode and parser processing means positioned in certain of the stages is responsive to a recognized control token and reconfigures a particular stage to handle an identified data token. Methods relating to the decoder and decompression system include processing steps relating thereto